

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019005**Date Inspected:** 03-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC)**Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 11AE (Traveler Rail Brackets)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel, Bike Path side at Panel Points (PP) 95, PP 96 and PP 97 for Segment 11AE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00594 dated January 03, 2010.

The bolt sizes used were M20 x 120 RC Lot # DHGM200006 and the final torque value established was 340 N-m.

The bolt sizes used were M22 x 120 RC Lot # DHGM220054 and the final torque value established was 497 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Please reference the pictures attached for more comprehensive details.

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Segment 11BE (Traveler Rail Brackets)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel, Bike Path side at Panel Points (PP) 98, PP 99 and PP 100 for Segment 11BE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00594 dated January 03, 2010.

The bolt sizes used were M20 x 120 RC Lot # DHGM200006 and the final torque value established was 340 N-m.

The bolt sizes used were M22 x 120 RC Lot # DHGM220054 and the final torque value established was 497 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 11CE (Traveler Rail Brackets)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel, Bike Path side at Panel Points (PP) 101, PP 102 and PP 103 for Segment 11CE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00594 dated January 03, 2010.

The bolt sizes used were M20 x 120 RC Lot # DHGM200006 and the final torque value established was 340 N-m.

The bolt sizes used were M22 x 120 RC Lot # DHGM220054 and the final torque value established was 497 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 11DE (Traveler Rail Brackets)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel, Bike Path side at Panel Points (PP) 104, PP 105 and PP 106 for Segment 11DE. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00594 dated January 03, 2010.

The bolt sizes used were M20 x 120 RC Lot # DHGM200006 and the final torque value established was 340 N-m.

The bolt sizes used were M22 x 120 RC Lot # DHGM220054 and the final torque value established was 497 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Segment 11EE (Traveler Rail Brackets)

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Traveler Rail Bracket to the Side Panel, Bike Path side at Panel Points (PP) 107 and PP 108 for Segment 11EE. The QA Inspector verified the

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bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00594 dated January 03, 2010.

The bolt sizes used were M20 x 120 RC Lot # DHGM200006 and the final torque value established was 340 N-m.

The bolt sizes used were M22 x 120 RC Lot # DHGM220054 and the final torque value established was 497 N-m.

The Manual Torque wrench used was Serial No. XO2-666.

Please reference the pictures attached for more comprehensive details.

Segment 12AE (Bottom Panel to Side Panel hold back weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3001A-004. The welder identification was 044515 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as weld connecting Bottom Panel to Side Panel hold back weld at work point E3. ZPMC performed repair welding in accordance with Welding Repair Report B-WR19749 dated Jan 01, 2011.

Please reference the pictures attached for more comprehensive details.

Segment 12BE (Bottom Panel to Side Panel hold back weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3002A-004. The welder identification was 044515 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as weld connecting Bottom Panel to Side Panel hold back weld at work point E3. ZPMC performed repair welding in accordance with Welding Repair Report B-WR19749 dated Jan 01, 2011.

Segment 12AE (Bottom Panel to Side Panel hold back weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3001A-001. The welder identification was 050289 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as weld connecting Bottom Panel to Side Panel hold back weld at work point E4. ZPMC performed repair welding in accordance with Welding Repair Report B-WR19750 dated Jan 01, 2011.

Segment 12BE (Bottom Panel to Side Panel hold back weld)

This QA Inspector observed the repair welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3002A-001. The welder identification

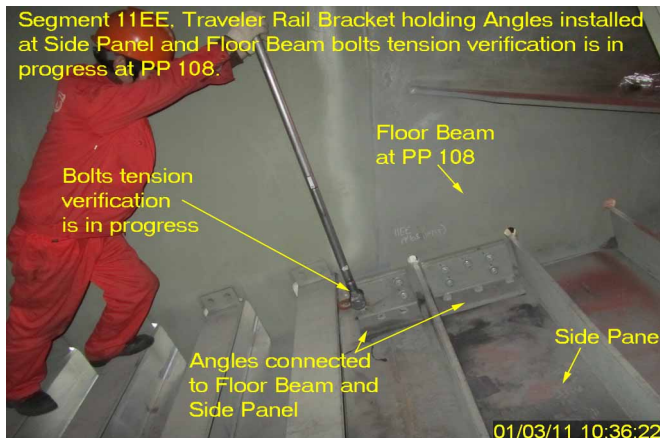
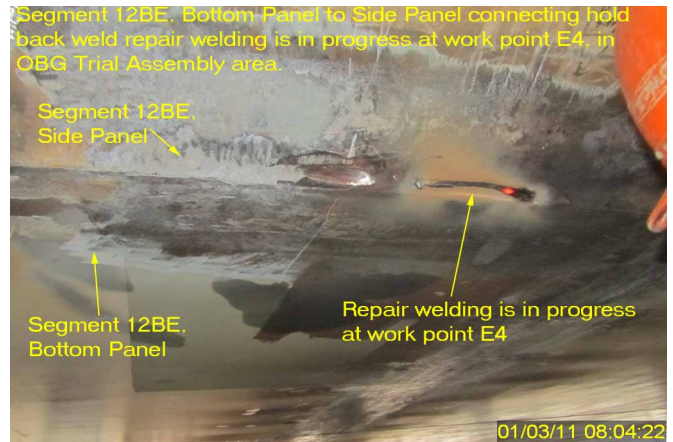
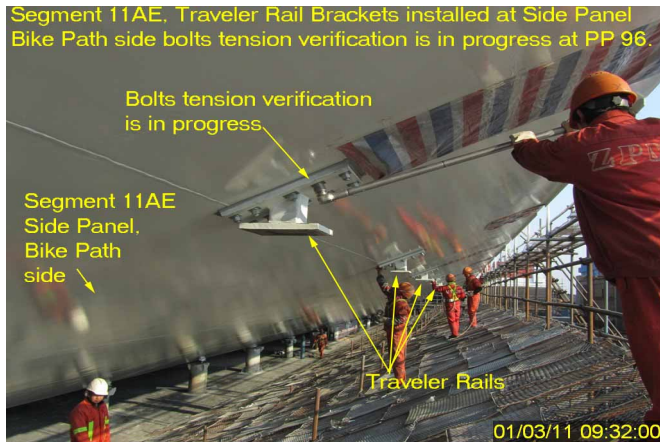
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was 050289 and was observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G(4F)-FCM-Repair-1. The piece mark was identified as weld connecting Bottom Panel to Side Panel hold back weld at work point E4. ZPMC performed repair welding in accordance with Welding Repair Report B-WR19750 dated Jan 01, 2011.

Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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Segment 11AE. Traveler Rail Brackets installed at Side Panel Bike Path side bolts tension verification is in progress at PP 96.



Segment 12AE. Bottom Panel to Side Panel connecting hold back weld repair welding is in progress at work point E3, in OBG Trial Assembly area.



Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

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| Inspected By: | Math,Manjunath | Quality Assurance Inspector |
| Reviewed By: | Dsouza,Christopher | QA Reviewer |
